

Appln No.: 10/797,418

Amendment Dated: December 1, 2006

Reply to Office Action of July 3, 2006

REMARKS/ARGUMENTS

This is in response to the Office Action mailed July 3, 2006 for the above-captioned application. Reconsideration and further examination are respectfully requested.

Applicants request an extension of time sufficient to make this paper timely. The Commissioner is authorized to charge the fee for this extension to Deposit Account No. 07-0893.

Applicants note that an Information Disclosure Statement was filed in this case on September 25, 2006. Consideration of the reference cited therein, and return of an initialed 1449 with the next paper is respectfully requested.

Several claims have been amended to correct clerical issues. In addition, new claims 96-98 have been added reciting the limitation from original claim 1 concerning the amount of phosgene addition.

The Examiner rejected the claims of this application as anticipated by various references. Before addressing the specific merits of these rejections, Applicants submit that in now case has the Examiner made a complete and *prima facie* rejection under § 102. In particular, Applicants remind the Examiner that in order to present a *prima facie* case of anticipation, "it is incumbent upon the **examiner** to identify wherein each and every facet of the claimed invention is disclosed in the applied reference." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (BPAI 1990), *citing* Lindemann Maschinenfabrik GmbH v. (original) American Hoist and Derrick, 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984). The Examiner has not met this burden with respect to any claim or any reference. Thus, the rejections should be withdrawn, or presented completely in a **non-final action**.

Claims 1-4 stand rejected as anticipated by any of 4 references. Claim 1 refers to a method for preparing an aromatic bischloroformate mixture. To show anticipation of this method, the Examiner would have to show a method that teaches:

(a) combining one or more aromatic dihydroxy compounds with phosgene, a phase transfer catalyst, an aqueous solvent and an organic solvent under interfacial reaction conditions while maintaining the pH in the range of about 3 to about 8, and

(b) wherein the phase transfer catalyst is present in an amount that is effective for catalyzing a reaction between the phosgene and the one or more aromatic dihydroxy compounds, and

(c) carrying out the reaction **until about 105 to about 150 mole percent of phosgene has been added based on the total moles of available hydroxy groups** of the one or more aromatic dihydroxy compounds, thus producing an aromatic bischloroformate mixture.

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The Examiner has referred to the pH limitation in these claims but has not mentioned or shown where in the references the specified mole percent of phosgene is taught. Thus, no *prima facie* case of anticipation has been made.

The first reference cited by the Examiner as anticipating claims 1-4 is US Patent No. 5,214,183. This patent does not disclose the limitation of claim 1 that the reaction is carried out "**until about 105 to about 150 mole percent of phosgene has been added based on the total moles of available hydroxy groups.**" In the rejection the rejection, the refers to tables 1 and 2, but does not state that these tables disclose this limitation. More significantly, these tables do not disclose the limitation. In Table 1, the ratio mol phosgene/mol BPA delivered is given in column 5(1) as having a range of from 1.01 to 1.31 (or 101 to 131 mol %). This is not equivalent to the stated mol % in the claims because the mol percent in the claims is based on hydroxy groups while the mol % in reference is based on BPA which has two hydroxy groups. Converting the numbers to the same basis requires modification by a factor of 2. Thus, Table 1 of the reference discloses mol % based on hydroxy groups of 50.5 to 65.5 which is not close to the amount required in claims 1-4. Thus there is no anticipation of claims 1-4 by this reference.

The second reference cited by the Examiner as anticipating claims 1-4 is US Patent No. 5,508,375. The examiner has stated with respect to this reference that "since the disclosed amounts or percentages are expressed differently, it is incumbent upon applicant(s) to establish that they are in fact different and whether such difference is unobvious." This shifting of the burden to Applicants is improper in the absence of an explanation of what the Examiner believes may be anticipatory. Furthermore, Applicants are not obligated to prove that an invention is unobvious until a *prima facie* case of obviousness is presented. This has not been done here.

Nevertheless, Applicants note that the examples of the '375 patent all ¹ use amounts of materials that provide 0.0646 mole phosgene/hr and 0.0581 mole BPA/hr resulting in a mol % value based on BPA of 111%. This corresponds to 55.5 in the units of the present claims which is not even close to the claimed range. Thus, there is no anticipation of claims 1-4 by this reference.

The third reference cited as anticipating claims 1-4 is EP 644 220. As a first matter, it does not appear that this reference is listed on any 1449 or 892 of record in this case as of the date of this office action. It is, however, the reference filed with the Information Disclosure Statement filed September 25, 2006. With respect to the anticipation rejection, the Examiner

¹ It is noted that the flow rate of the bisphenolate solution is different between examples 1 and 2. However, the concentration of the solution is also different and the effective rate of addition of BPA in both cases is the same.

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has not identified the how the requirements for anticipation are met. For example, while the Examiner has not shown how a pH range if 8 to 8 could be said to anticipate the pH range of about 6 to about 7 found in claim 2. Furthermore, the goal of the reference as stated by the Examiner is to limit to phosgene usage to less than 15% over the theoretical amount. This would therefore be less than 115 mol% phosgene based on BPA,² which in the units of the present invention would be 57.5 mol% based on OH groups. Thus this reference is not anticipatory and the rejection should be withdrawn.

The Examiner also rejected claims 5-95 as anticipated by EP 764676. Again, there is no explanation of the basis for this rejection nor a comparison of the limitations of the claims with the teaching of the reference. Thus, the Examiner has plainly failed to present a *prima facie* case for anticipation. Nevertheless, Applicants note the following differences between the present invention and the reference.³

1. Claim 5 recites a multistep method. The first step of this method is

(A) preparing a bischloroformate reaction mixture by combining a first portion of one or more aromatic dihydroxy compounds with phosgene, a phase transfer catalyst, an aqueous solvent and an organic solvent under interfacial reaction conditions while maintaining the pH in the range of from about 3 to about 8;

The Examiner has not at any time shown that the reference discloses such a process for preparing a bischloroformate reaction mixture. Indeed, the reference does not even use a separate chloroformate formation step. This same limitation is found in dependent claims 6-42 and in claims 88-92. The anticipation rejection as to these claims should be withdrawn.

2. The fourth step (D) of the method of claim 5 requires a second addition of dihydroxy compound after pH adjustment. The Examiner has not shown how this limitation is met by the method of the reference which shows addition of all of the dihydroxy compound and all of the siloxane in the initial mixture.

² See Page 3, line 11 of the reference which indicates that the stoichiometric ratio is 1 mol phosgene per mol BPA.

³ In view of the insufficiency of the rejection, this list should be considered merely exemplary of the differences between the claimed invention and the cited reference.

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3. The Examiner has now shown where the reference teaches allowing the reaction to proceed until there are less than 50 ppm as required in step (f) prior to adding a chain stopper in step (G).

4. The Examiner has not shown where the reference teaches an addition of phosgene near the end of the process nor the pH limitation as in step (H).

Thus, without even addressing the limitations of the dependent claims, it is apparent that the anticipation rejection of the method claims is not well founded. Accordingly, this rejection should be withdrawn.

Looking at the composition claims, the Examiner correctly states that a composition does not become patentable again because a new method for making it is found. In making this argument, however, the Examiner is making the assumption that the product of EP 764476 is the same as that of the present invention without establishing a sound basis for this assumption. For example, the methods disclosed in this application are different, as reflected above, and therefore the Examiner is required to set forth more reasoning to explain why there would be a reasonable expectation that the compositions would be the same to the extent that the claimed method is used in making the polymer.

Furthermore, EP 764476 describes block copolymers of polycarbonate and polysiloxane. This means that there are segments or "blocks" of polycarbonate separated one from the other by segments or "blocks" of the polysiloxane. As observed in the present specification, compounds with random distribution (as opposed to block distribution) of the dihydroxy compounds and the siloxane compounds are more transparent. (Page 3, lines 4-13). EP 764476 is silent concerning the optical properties of the polymer made therein. However, a person skilled in the art would not expect the material of EP 764476 to have optical properties (e.g. transparency) better than the properties of copolymers made in accordance with the method of US Patent No. 5,530,083 of Phelps, cited in the specification. Indeed, the reference procedure is similar to the control examples in the '083 patent, which are shown to be white or opaque. As can be seen on Page 27 of this application, however, the properties of compositions of the invention are better than compositions made by the method of the '083 patent, and therefore these compositions cannot reasonably be presumed to be the same as those of the cited reference.

To further demonstrate the difference between the claimed compositions and those made in accordance with the process of EP 764476, Applicants prepared thin films of each material as

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described in the attached Declaration under Rule 132.⁴ As shown, the haze for the copolymer prepared by the method of the '676 reference averaged 20.4 (5 measurements). The haze for the copolymer prepared by the present invention averaged 1.3 (5 measurements). The practical consequence of this difference is shown in the photograph attached to the declaration.

For these reasons, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully submitted,

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Attachment: Declaration under Rule 132.

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The declarations attached are signed by some of the inventors. Efforts are underway to locate the remaining inventors.